FAA Facts

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HOW DOES THAT WORK?

IDENTIFYING AND MEASURING AIRPORT NOISE

The U.S. Aviation Safety and Noise Abatement Act (ASNA) of 1979 required the FAA to establish a single system of measuring aircraft noise and a single system for determining the exposure of individuals to noise in the vicinity of airports. Federal Aviation Regulation Part 150 for Airport Noise Compatibility Planning is the current regulation that implements the requirements of this Congressional Act.

Maps, Measurement and Mitigation

The FAA's Part 150 regulations establish a standardized airport noise compatibility planning program which includes:

1.) development of noise exposure maps and noise compatibility programs by airport operators;
2.) procedures for the development of noise maps and noise programs;
3.) the identification of compatible land uses around airports; and
4.) standard noise methodologies and units.

The development of noise maps and a Part 150 noise program by an airport sponsor is voluntary. However, the FAA requires a Part 150 noise program if the airport sponsor intends to identify noise sensitive areas around the airport and also desires Federal funds to accomplish noise mitigation actions identified in their noise compatibility program.

A complete Part 150 study essentially involves two-parts: the first part focuses on the development of noise exposure maps and the second part comprises the development of a noise compatibility program. The entire process is coordinated by the airport sponsor and requires extensive public involvement that includes public information workshops and the input of technical advisory groups.

Identifying Noise Levels

Within the Part 150 regulations, the FAA has a method for effectively measuring airport noise levels in accordance with accepted acoustical measurement methodology. An airport sponsor's noise exposure maps do not identify land around an airport based on a single noise event, but identify such areas based on a "Yearly Day-Night Average Sound Level" or DNL. The DNL level is measured in decibels. DNL noise exposure measurements on a Part 150 noise map include variables such as multiple aircraft noise events and their time of day (daytime or nighttime) for determining the cumulative exposure of individuals to noise around airports.

As a general policy, the FAA identifies 65 DNL as the **low-end threshold** for the federal funding of noise mitigation in residential areas and in other noise-sensitive locations such as schools. Homes and schools in an area identified with a noise exposure contour of 65 DNL or higher generally are eligible for federal funds for noise mitigation. Though the FAA may consider the 65 DNL noise exposure contour as a low-end threshold, the responsibility for determining noise mitigation needs and acceptable land uses rests with local authorities.

Funding Priorities

The FAA developed the Part 150 regulations to be a single, nationwide model for measuring noise, for determining noise exposure, and as a standard criteria for the distribution of federal funds on noise mitigation.

Homes and schools identified with a greater need for noise mitigation are given a higher priority for the disbursement of the federal government's limited noise funds. Federal Airport Improvement Program (AIP) funding legislation provides the guidelines and the priority system for the distribution of grant money for noise mitigation.

In addition to AIP grants, airport sponsors also can use revenue from Passenger Facility Charges (PFCs) for noise mitigation projects in communities near the airport. Since PFC dollars are considered local funds and not federal funds, the airport sponsor can develop their own method for prioritizing how the noise mitigation projects would proceed and they are not tied to the FAA's Part 150 guidelines nor the 65 DNL threshold.

Noise and Access Restrictions

Another set of FAA regulations concerning airport noise is Part 161, "Notice and approval of Airport Noise and Access Restrictions." This regulation focuses on approval requirements for any proposed noise restrictions and access restrictions for aircraft operating at airports.

These restrictions could include nighttime or early morning curfews, the prohibition of certain types of aircraft, or other limiting measures.

The requirements of Part 161 regulations include a rigorous FAA analysis of the aviation impacts of the restrictions, and are subject to multiple levels of scrutiny. There are no provisions to use federal funds to implement Part 161 noise and access restrictions.